Contents

Afon'kin, S. Yu., s. Golinska, Krystyna

Albertano, Patrizia, Canini, Antonella, Grilli Caiola, Maria, Sub-cellular distribution of nitrogen compounds in *Azolla* and *Anabaena* by ESI and EELS analysis 158

Armstrong, Lydia, Snyder, Judith A., Role of microtubule organization in centrosome migration and mitotic spindle formation in PtK_1 cells 133

Ashford, A. E., s. Orlovich, D. A.

Bergounioux, Catherine, s. Staxén, Irina

Bornman, Janet F., s. Staxén, Irina

Brown, S., s. Le Gall, Y.

Callaghan, P. T., s. Xia, Y.

Campbell, E. O., s, Xia, Y.

Canini, Antonella, s. Albertano, Patrizia

Carmona, Maria J., Hernández-Lucas, C., San Martín, Carmen, González, P., Garcia-Olmedo, F., Subcellular localization of type I thionins in the endosperms of wheat and barley . . 1

Dereuddre, J., s. Morisset, Christiane

Fineran, B. A., A lamellated striated layer in the spore wall of the smut fungus Entorrhiza (Ustilaginales) 58

Garcia-Olmedo, F., s. Carmona, Maria J.

Gazeau, C., s. Morisset, Christiane

Golinska, Krystyna, Afon'kin, S. Yu., Preparatory changes and the development of the conjugation junction in a ciliate, *Dileptus* 144

Golz, R., Thurm, U., Ultrastructural evidence for the occurrence of three types of mechanosensitive cells in the tentacles of the cubozoan polyp *Carybdea marsupialis* 13

González, P., s. Carmona, Maria J.

Grilli Caiola, Maria, s. Albertano, Patrizia

Günther, P., s. Wernicke, W.

Hall, Vickie L., s. Horner, H. T.

Hansz, J., s. Morisset, Christiane

Heath, I.B., s. Jackson, S. L.

Hernández-Lucas, C., s. Carmona, Maria J.

Horner, H. T., Hall, Vickie L., Vargas-Olvera, M. A., Isolation, sorting, and characterization of uni- and binucleate tapetal protoplasts from anthers of normal and Texas cytoplasmic male-sterile *Zea mays* L. 48

Jackson, S. L., Heath, I. B., The dynamic behavior of cytoplasmic F-actin in growing hyphae 23

Jonas, D., s. Pope, J. M.

Jung, G., s. Wernicke, W.

Kloareg, B., s. Le Gall, Y.

Le Gall, Y., Brown, S., Marie, Dominique, Mejjad, Meftaha, Kloareg, B., Quantification of nuclear DNA and G-C content in marine macroalgae by flow cytometry of isolated nuclei 123

Marie, Dominique, s. Le Gall, Y.

Mejjad, Meftaha, s. Le Gall, Y.

Mizuno, K., Microtubule-nucleation sites on nuclei of higher plant cells 77

Morisset, Christiane, Gazeau, C., Hansz, J., Dereuddre, J., Importance of actin cytoskeleton behaviour during preservation of carrot cell suspensions in liquid nitrogen 35

Müller, B., S. Schenk, P.M.

Orlovich, D. A., Ashford, A. E., Polyphosphate granules are an artefact of specimen preparation in the ectomycorrhizal fungus *Pisolithus tinctorius* 91

Pope, J. M., Jonas, D., Walker, R. R., Applications of NMR micro-imaging to the study of water, lipid, and carbohydrate distribution in grape berries 177

San Martín, Carmen, s. Carmona, Maria J.

Sarafis, V., s. Xia, Y.

Schenk, P. M., Steinbiß, H.-H., Müller, B., Schmitz, K., Association of two barley yellow mosaic virus (RNA 2) encoded proteins with cytoplasmic inclusion bodies revealed by immunogold localization 113

Schmitz, K., s. Schenk, P. M.

Schopfer, P., s. Zandomeni, K.

Snyder, Judith, A., s. Armstrong, Lydia

Staxén, Irina, Bergounioux, Catherine, Bornman, Janet F., Effect of ultraviolet radiation on cell division and microtubule organization in *Petunia hybrida* protoplasts 70

Steinbiß, H.-H., s. Schenk, P.M.

Thurm, U., s. Golz, R.

Vargas-Olvera, M. A., s. Horner, H. T.

Walker, R. R., s. Pope, J. M.

Wernicke, W., Günther, P., Jung, G., Microtubules and cell shaping in the mesophyll of *Nigella damascena* L. 8

Xia, Y., Sarafis, V., Campbell, E. O., Callaghan, P. T., Non invasive imaging of water flow in plants by NMR microscopy 170

Zandomeni, K., Schopfer, P., Reorientation of microtubules at the outer epidermal wall of maize coleoptiles by phytochrome, blue-light photoreceptor, and auxin 103

Rapid Communication

Van der Maas, H. M., Zaal, M. A. C. M., de Jong, E. R., Krens, F. A., Van Went, J. L., Isolation of viable egg cells of perennial ryegrass (*Lolium perenne* L.) 86